

What is claimed is:

1. A method for determining a driving state from a plurality of driving states sorted in accordance with the degree of danger thereof, the method comprising the steps of:

5 allocating at least one test criterion for at least one driving parameter of a plurality of driving parameters to each of said driving states;

detecting at least one of said driving parameters; and,

10 based on said driving parameter, testing to determine if one of said driving states from said plurality of driving states is present by testing in a time sequence starting with the most dangerous of said driving states by evaluating the test criterion corresponding thereto.

2. The method of claim 1, wherein said plurality of driving states includes a first driving state with a tilt tendency during a dynamic maneuver and a second driving state with a tilt tendency during a quasi-static drive in a curve.

3. The method of claim 2, wherein said plurality of driving states includes a third driving state during travel along a slope or at standstill on a slope.

4. The method of claim 1, the method including the further step of detecting at least one of the following parameters: roll angle, roll angle velocity, transverse acceleration, yaw rate, wheel-contact force and steering angle.

5. The method of claim 1, wherein said plurality of driving

states includes a first driving state to which a first threshold value is allocated as a test criterion; a second driving state to which a second threshold value is allocated as a test criterion; 5 said first driving state is more dangerous than said second driving state; and, said first threshold value lies below said second threshold value.

6. The method of claim 1, wherein said driving parameter is a roll angle; and, wherein the method comprises the further step of determining said roll angle by evaluating signals of elevation sensors which measure the distance of a bodywork of a vehicle 5 from a wheel axle.

7. The method of claim 6, wherein the method comprises the further step of determining the roll angle velocity as one of said parameters by filtering said roll angle through first and second filters of different time constants.

8. The method of claim 1, wherein the method comprises the further step of outputting a warning signal when one of said driving states is determined.

9. The method of claim 8, wherein said warning signal includes at least one of the following: a touch-sensitive signal; an acoustic signal; and, a visual signal.

10. The method of claim 1, wherein the method includes the further step of outputting a signal to a vehicle control system after determining one of said driving states.

11. A digital storage medium comprising: program means for determining a driving state from a plurality of driving states sorted in accordance with the degree of danger thereof with at least one test criterion for at least one parameter of a plurality of driving parameters being allocated to each of said driving states; and, said program means being configured to perform the method steps of:

5 inputting at least one of said parameters; and,
10 based on said driving parameter, testing to determine if one of said driving states from said plurality of driving states is present by testing in a time sequence starting with the most dangerous of said driving states by evaluating the test criterion corresponding thereto.

12. An arrangement for determining a driving state from a plurality of driving states, the arrangement comprising:

5 a memory for storing at least one test criterion for each of said driving states;
10 means for detecting at least one driving parameter; and,
 means for testing, based on said driving parameter, to determine if one of said driving states from said plurality of driving states is present by testing in a time sequence starting with the most dangerous of said driving states by evaluating the test criterion corresponding thereto.

13. The arrangement of claim 12, further comprising means for detecting at least one of the following parameters: roll angle, roll angle velocity, transverse acceleration, yaw rate, wheel-contact force and steering angle.

14. The arrangement of claim 11, wherein the following are stored in said memory: a first threshold value as a first test criterion for a first driving state and a second threshold value as a second test criterion for a second driving state; said first driving state having a higher degree of danger than said second driving state; and, said first threshold value lying below said second threshold value.

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15. The arrangement of claim 11, further comprising elevation sensors for measuring at least two distances between a wheel axle and a vehicle bodywork to determine a roll angle as one of said parameters.

16. The arrangement of claim 15, further comprising first and second filters for determining a roll angle velocity from said roll angle; and, said first filter having a time constant greater than the time constant of said second filter.

17. The arrangement of claim 11, further comprising means for outputting a warning signal.

18. The arrangement of claim 17, wherein said warning signal includes at least one of the following: a touch-sensitive signal; an acoustic signal; and, a visual signal.

19. The arrangement of claim 11, further comprising means for a signal to a vehicle control system after determining one of said driving states.

20. The arrangement of claim 17, wherein said signal includes an

indication of the determined driving state.